

IN THE CLAIMS:

Please AMEND claims 1-18 and ADD new claims 19 and 20 as follows.

1. (Currently Amended) A sheet processing apparatus aligning and stacking a sheet or sheet bundle comprising:

stacking portion on means which ~~stacks~~ the sheet or sheet bundle is stacked;

conveying portion means which conveys the sheet or sheet bundle toward the stacking means;

sheet rear end aligning unit means which aligns a rear end of the sheet or sheet bundle upon pressing toward the stacking ~~means~~ portion, the rear end of the sheet or sheet bundle conveyed by the conveying means; and

controlling portion means which controls ~~operation~~ acceleration of the sheet rear end aligning ~~means~~ unit by determining at least one feature of the sheet or sheet bundle being pressed.

wherein the controlling portion means controls the ~~operation~~ acceleration of the sheet rear end aligning unit means so that acceleration of the sheet or sheet bundle by pressing of the sheet rear end aligning unit means satisfies a relation:

$$\alpha \leq -\mu_1' g \text{ and } \alpha \leq -\mu_2' g$$

where acceleration of the sheet or sheet bundle by pressing of the sheet rear end aligning unit means at a time that the sheet rear end aligning unit means presses the rear end of the sheet or sheet bundle to align the rear end, is denoted as α , where gravitational acceleration is denoted as g , where coefficient of kinetic friction between the sheet or sheet bundle pressed by the sheet rear end aligning unit means and the stacking portion means is denoted as μ_1' , and where

coefficient of kinetic friction between the sheet or sheet bundle pressed by the sheet rear end aligning unit means and the sheet or sheet bundle already stacked on the stacking portion means is denoted as μ_2' .

2. (Currently Amended) The sheet processing apparatus according to claim 1, further comprising a processing unit means capable of temporarily stacking the sheets, disposed on an upstream side of the stacking portion means and the conveying portion means in the sheet conveyance direction, wherein the sheet or sheet bundle processed by ~~[[at]]~~ the processing unit means is conveyed to the stacking portion means by the conveying portion means.

3. (Currently Amended) The sheet processing apparatus according to claim 2, wherein the processing unit means includes a processing tray capable of temporarily stacking the sheet or sheet bundle sheets, an aligning unit means which aligns the sheet or sheet bundle sheets stacked on the processing tray, and a stapler unit stapling means which staples the sheet bundle aligned by the aligning unit means.

4. (Currently Amended) The sheet processing apparatus according to claim 1, wherein the stacking portion means has a stacking surface_a extending substantially horizontally, which stacks for stacking the sheet or sheet bundle.

5. (Currently Amended) An image forming apparatus comprising:
an image forming section apparatus which forms an image on a sheet; and

a sheet processing apparatus which aligns and stacks the sheet ~~or the sheet bundle~~ delivered from the image forming section apparatus-body,

wherein the sheet processing apparatus is as set forth in any one of claims 1 to 4.

6. (Currently Amended) An image forming apparatus, comprising:

an image forming section which forms an image on a sheet ~~or sheet bundle~~;

stacking portion means which stacks the sheet or sheet bundle on which the image is formed by the image forming section;

conveying portion means which conveys the sheet or sheet bundle toward the stacking portion means;

sheet rear end aligning unit means which aligns a rear end of the sheet or sheet bundle upon pressing, toward the stacking portion means the rear end of the sheet or sheet bundle conveyed by the conveying portion means; and

controlling portion means which controls operation acceleration of the sheet rear end aligning unit by determining at least one characteristic of the sheet or sheet bundle being pressed means,

wherein the controlling portion means controls the operation acceleration of the sheet rear end aligning unit means so that acceleration of the sheet or sheet bundle by pressing of the sheet rear end aligning unit means satisfies a relation:

$$\alpha \leq -\mu_1'g \text{ and } \alpha \leq -\mu_2'g$$

where acceleration of the sheet or sheet bundle by pressing of the sheet rear end aligning unit means at a time that the sheet rear end aligning unit means presses the rear end of the sheet or sheet bundle to align the rear end, is denoted as α , where gravitational acceleration is denoted as

g, where coefficient of kinetic friction between the sheet or sheet bundle pressed by the sheet rear end aligning unit means and the stacking portion means is denoted as μ_1' , and where coefficient of kinetic friction between the sheet or sheet bundle pressed by the sheet rear end aligning unit means and the sheet or sheet bundle already stacked on the stacking portion means is denoted as μ_2' .

7. (Currently Amended) The image forming sheet processing apparatus according to claim 6, further comprising processing unit means capable of temporarily stacking the sheet or sheet bundle sheets, disposed on an upstream side of the stacking portion means and the conveying portion means in the sheet conveyance direction, wherein the sheet or sheet bundle processed by [[at]] the processing unit means is conveyed to the stacking portion means by the conveying portion means.

8. (Currently Amended) The image forming sheet processing apparatus according to claim 7, wherein the processing unit means includes a processing tray capable of temporarily stacking the sheet or sheet bundle sheets, an aligning unit means which aligns the sheet or sheet bundle sheets stacked on the processing tray, and a stapler unit which staples stapling means for stapling the sheet bundle aligned by the aligning unit means.

9. (Currently Amended) The image forming sheet processing apparatus according to claim 6, wherein the stacking portion means has a stacking surface_a extending substantially horizontally, which stacks for stacking the sheet or sheet bundle.

10. (Currently Amended) A sheet processing apparatus aligning and stacking a sheet comprising:

a stacking portion on tray which ~~stacks~~ sheets or sheet bundles are stacked;

a conveying portion roller which conveys the sheet or ~~the~~ sheet bundle toward the stacking portion tray;

a sheet rear end aligning unit ~~wall~~ which aligns a rear end of the sheet or ~~the~~ sheet bundle upon pressing, toward the stacking portion, tray the rear end of the sheet or the sheet bundle conveyed by the conveying portion roller; and

a controller which controls operation acceleration of the sheet rear end aligning unit ~~wall~~,

wherein acceleration of the sheet or sheet bundle by pressing of the sheet rear end aligning unit ~~wall~~ is determined based on a ~~kind of the sheet~~ feature of the sheet or sheet bundle being pressed.

11. (Currently Amended) The sheet processing apparatus according to claim 10, further comprising a processing unit tray capable of temporarily stacking the sheet or sheet bundle sheets, disposed on an upstream side of the stacking portion tray and the conveying portion roller in the sheet conveyance direction, wherein the sheet or ~~the~~ sheet bundle processed ~~[[at]]~~ by the processing unit tray is conveyed to the stacking portion tray by the conveying portion roller.

12. (Currently Amended) The sheet processing apparatus according to claim 11, wherein the processing unit includes a processing tray capable of temporarily stacking the sheet

or sheet bundle, an ~~further comprising~~ alignment unit plates which ~~align~~ aligns the sheet or sheet bundle sheets in the sheet width direction, stacked on the processing tray, and a stapler unit which staples the sheets aligned by the alignment unit plates.

13. (Currently Amended) The sheet processing apparatus according to claim 10, wherein the stacking portion ~~tray~~ has a stacking surface, extending substantially horizontally, which stacks the sheets or ~~the~~ sheet bundles.

14. (Currently Amended) An image forming apparatus comprising:
an image forming section ~~apparatus body~~ which forms an image on a sheet or sheet bundle; and
a sheet processing apparatus which aligns and stacks the sheet or ~~the~~ sheet bundle delivered from the image forming section ~~apparatus body~~,
wherein the sheet processing apparatus is as set forth in any one of claims 10 to 13.

15. (Currently Amended) An image forming apparatus forming an image on a sheet, comprising:
an image forming section which forms an image on the sheet;
a stacking portion on ~~tray~~ which ~~stacks~~ sheets or sheet bundles on which the image is formed by the image forming section are stacked;
a conveying portion ~~roller~~ which conveys the sheet sheets or the sheet bundle bundles toward the stacking portion ~~tray~~;

a sheet rear end aligning portion ~~wall~~ which aligns a rear end of the sheet or the sheet bundle upon pressing toward the stacking portion, ~~tray~~ the rear end of the ~~sheet~~ sheets or the sheet ~~bundle~~ bundles conveyed by the conveying portion ~~rotter~~; and

a controller which controls ~~operation~~ acceleration of the rear end aligning unit ~~wall~~,

wherein acceleration of the ~~sheet~~ sheets or the sheet ~~bundle~~ bundles by pressing of the sheet rear end aligning unit ~~wall~~ is determined based on a kind feature of ~~the sheet~~ sheets or sheet bundles being pressed and a feature of sheet stacked on the stacking portion.

16. (Currently Amended) The sheet processing apparatus according to claim 15, further comprising a processing unit ~~tray~~ capable of temporarily stacking the sheets, disposed on an upstream side of the stacking tray and the conveying portion ~~rotter~~ in the sheet conveyance direction, wherein the sheets ~~sheet or sheet bundle~~ processed at the processing unit ~~tray~~ is conveyed to the stacking portion ~~tray~~ by the conveying portion ~~rotter~~.

17. (Currently Amended) The sheet processing apparatus according to claim 16, wherein the processing unit includes a processing tray capable of temporarily stacking the sheets, an further comprising aligning unit ~~plates~~ which align aligns the sheets in the sheet width direction, stacked on the processing tray, and a stapler unit which staples the sheets aligned by the aligning unit ~~plates~~.

18. (Currently Amended) The sheet processing apparatus according to claim 15, wherein the stacking portion tray has a stacking surface, extending substantially horizontally, which stacks the sheets or the sheet bundles.

19. (New) The sheet processing apparatus according to claim 1, wherein the at least one feature is one of (1) a kind of sheet or sheet bundle or (2) toner amounts carried on the sheet or sheet bundle.

20. (New) The sheet processing apparatus according to claim 6, wherein the at least one characteristic is one of (1) a kind of sheet or sheet bundle or (2) toner amounts carried on the sheet or sheet bundle